REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-4, 6, 8-13, and 17-28 are currently pending, Claims 1, 6, 10, 17, 21, 23, and 27 having been amended, and Claim 28 having been added. The changes and additions to the claims do not add new matter and are supported by the originally filed specification, for example, on Figs. 2C, 2D, 3, and 4A; and page 3, lines 21-23.

In the outstanding Office Action, the drawings were objected to; Claims 1, 2, 4, 6, 9-12, 17, 18, 20-25, and 27 were rejected under 35 U.S.C. §102(b) as being anticipated by Katoh et al. (U.S. Patent No. 4,743,868, hereafter "Katoh"); Claims 3 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Katoh in view of Kimura (U.S. Patent No. 5,396,104); Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Katoh in view of Depuydt et al. (U.S. Patent No. 5,635,718, hereafter "Depuydt"); Claims 13 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Katoh in view of Baek et al. (U.S. Patent No. 6,835,598, hereafter "Baek").

Applicant thanks the examiner for the courtesy of an interview extended to Applicant's representative on January 27, 2009. During the interview, the differences between the claims and the applied art were discussed. Further, clarifying claim amendments were also discussed. Arguments and claims similar to those presented during the interview are presented for formal consideration.

With respect to the objection to the drawings, Applicant respectfully traverses this ground of objection. The examiner has repeated objections from the previous Office Action, and indicated that "since applicant does not amend the drawing, specification or provide a remark, the objection to the drawing is maintained." However, Applicant did submit arguments traversing the grounds of objection in the response filed on June 17, 2008 (see

pages 9-10). For convenience, the arguments regarding the outstanding drawing objections are re-submitted below.

With respect to the objection to drawings for not including reference numbers "E1" and "E2", Applicant respectfully traverses this ground of objection. The specification refers to "E1" and "E2" as being the respective thicknesses of the transfer element 24 and the component 20, and that the spacer 30 may have a width greater than E1 + E2 (see specification, at page 6, lines 17-18 and page 7, lines 9-10). However, the specification does not specifically reference E1 and E2 as being in any of the figures. Therefore, Applicant respectfully submits that E1 and E2 are clearly described in the specification and that they are not required to be shown in the figures. Therefore, Applicant respectfully requests that this objection be withdrawn.

With respect to the objection to Fig. 2A for reference characters "L1 and "L2" not being disclosed in the specification, Applicant respectfully traverses this ground of objection. Applicant submits that reference characters L1 and L2 are disclosed in the specification, for example, on page 6, lines 15 and 22-25. Therefore, Applicant respectfully requests that this ground of objection be withdrawn.

With respect to the objection to Fig. 3 for reference character "A" not being disclosed in the specification, Applicant respectfully traverses this ground of objection. Applicant submits that reference character "A" is disclosed in the specification, for example, on page 8, line 8. Therefore, Applicant respectfully requests that this ground of objection be withdrawn.

With respect to the rejection of Claim 1 under 35 U.S.C. 102(b), Applicant respectfully submits that the amendment to Claim 1 overcomes this ground of rejection. Amended Claim 1 recites, *inter alia*,

> a) an active element, comprising a semiconductor component comprising at least one of a photon or radiation detector, a photon or radiation emission device, and a MEMS, said active element having a first and a second

face, the first face being provided with electrical connections, arranged on one side only of said active element;

b) a transfer element, comprising a first face and a second face and being assembled to the second face of the active element through its first face, and having electrical connections on its second face, this transfer element being configured to be assembled on a surface of another circuit on the side of its second face such that the second face of the transfer element is parallel to the surface of the another circuit.

Applicant respectfully submits that Katoh fails to disclose or suggest at least these features of Claim 1.

Katoh is directed to a high frequency filter for electric instruments. Figs. 1 and 2 of Katoh show a high frequency filter F attached to a printed circuit board 1. The filter includes a circuit element 6, which is described as a "hybrid integrated circuit, a transistor array, or the like." (See col. 3, lines 11-14). Figs. 1 and 2 show an insulation substance layer 4 adjacent to the circuit element 6 with a common electrode plate 5 between them. There are a plurality of electrode strips 3a-3e disposed on the insulation substance layer 4. A plurality of metal legs 2a-2e are shown connecting the electrode strips 3a-3e to wiring layers 1a-1e formed on the printed circuit board. A plurality of curved jumper wires 7a-7e are jumped over the insulation layer 4 and common electrode plate 5 to connect electrode strips 3a-3e respectively to input terminals 6a-6e which are on the circuit element 6 (see col. 4, lines 2-9).

The Office Action takes the position that circuit element 6 of Katoh corresponds to the claimed "active element" and insulation layer 4 corresponds to the claimed "transfer element." (See Office Action, at pages 3-4).

However, Figs. 1 and 2 clearly show that the insulation layer 4 is attached to the printed circuit board 1 (via electrode strips 3a-3e and metal legs 2a-2e) such that it is ***perpendicular*** to the printed circuit board 1.

Additionally, during the interview, the examiner explained that she interpreted the circuit element 6 of Katoh as corresponding to either of the previously claimed "mechanical means" or "electromechanical means" based on a broad interpretation of these terms. However, amended Claim 1 now deletes the terms. Furthermore, Applicant submits that the circuit element 6, which is described as a "hybrid integrated circuit, a transistor array, or the like" in Katoh, is not "at least one of a photon or radiation detector, a photon or radiation emission device, and a MEMS," as defined by amended Claim 1.

Therefore, Applicant submits that Katoh fails to disclose or suggest "an active element, comprising a semiconductor component ***comprising at least one of a photon or radiation detector, a photon or radiation emission device, and a MEMS***," and "a transfer element, comprising a first face and a second face and being assembled to the second face of the active element through its first face, and having electrical connections on its second face, this transfer element being configured to be assembled on a surface of another circuit on the side of its second face ***such that the second face is parallel to the surface of the another circuit***," as defined by amended Claim 1.

Therefore, Applicant respectfully submits that amended Claim 1 (and all associated dependent claims) patentably distinguishes over Katoh.

Kimura, Depuydt, and Baek have been considered but fail to remedy the deficiencies of Katoh with regard to amended Claim 1. Therefore, Applicant respectfully submits that amended Claim 1 (and all associated dependent claims) patentably distinguishes over Katoh, Kimura, Depuydt, and Baek, either alone or in proper combination.

Amended independent Claims 17 and 27 recite features similar to those of amended Claim 1 discussed above. Therefore, Applicant respectfully submits that amended Claims 17 and 27 (and all associated dependent claims) patentably distinguish over Katoh, Kimura, Depuydt, and Baek, either alone or in proper combination.

With respect to the rejection of dependent Claims 6 and 21, Applicant respectfully submits that the amendment to Claims 6 and 21 overcomes this ground of rejection. Amended Claims 6 and 21 each recite, *inter alia*,

> said active element comprising at least one of a CMOS circuit, a CCD circuit, and a bipolar circuit.

The Office Action appears to take the position that the circuit element 6, which is described as a "hybrid integrated circuit, a transistor array, or the like" in Katoh, corresponds to "an interconnections network," as recited in previous Claim 6. However, amended Claim 6 deletes the recitation of "an interconnections network." Furthermore, Applicant submits that circuit element 6 of Katoh does not comprise "at least one of a CMOS circuit, a CCD circuit, and a bipolar circuit," as defined by amended Claims 6 and 21.

Therefore, Applicant respectfully submits that amended Claims 6 and 21 patentably distinguish over Katoh for at least the foregoing reasons.

With respect to the rejection of dependent Claim 8 under 35 U.S.C. §103(a), Applicant respectfully traverses this ground of rejection. Claim 8 recites, *inter alia*,

> a photon or radiation detector, or a photon or radiation emission device, hybridized onto the first face of said active element.

The Office Action acknowledges that Katoh fails to disclose or suggest "a photon or radiation detector hybridized onto the first face of said active element." (See Office Action, at page 9).

The Office Action relies on DePuydt to remedy the deficiencies of Katoh with regard to Claim 8. Fig. 1 of DePuydt shows a radiation detecting module 14 mounted on a carrier substrate 16 which is on a base substrate 12. The Office Action takes the position that it would have been obvious to apply the radiation detector of DePuydt onto the active element (circuit element 6) of Katoh "to produce a multi-module radiation detecting device." (See Office Action, at page 10, citing col. 4, lines 61-63 of DePuydt). However, the circuit

element 6 of Katoh ***is part of an HF filter*** as discussed above. Applicant submits that one of ordinary skill in the art would not attach a radiation detector onto an HF filter, and there is no reason or motivation to do so provided in the applied art. Applicant respectfully submits the Office Action has not shown any rational basis at all for mounting a radiation detection module, as described in DePuydt, onto the HF filter of Katoh. Therefore, Applicant respectfully submits that the rejection of Claim 8 is improper and must be withdrawn.

With respect to the rejection of Claim 10 under 35 U.S.C. §102(b), Applicant respectfully submits that the amendment to Claim 10 overcomes this ground of rejection. Amended Claim 10 recites, *inter alia*,

> wherein a single element hybridized on the first face of said active element covers all of the electrical connections located on said first face of said active element.

The Office Action appears to take the position that the elements 6a-6e of Katoh correspond to the claimed "electrical connections." However, the elements 6a-6e are described as input terminals from which jumper wires 7a-7e are attached to connect the circuit element 6 to electrode strips 3a-3e (see col. 4, lines 4-9). If any of elements 6a-6e are interpreted as the claimed "electrical connections," then Katoh does not show a "single element" being hybridized onto the circuit element 6 which covers all of the elements 6a-6e. Additionally, the Office Action cites to Fig. 2 of Katoh but has not actually shown what element in Katoh actually corresponds to the claimed "single element" which is hybridized on the circuit element 6 and covers the claimed "electrical connections."

Therefore, Applicant submits that Katoh fails to disclose or suggest "wherein a single element hybridized on the first face of said active element covers all of the electrical connections located on said first face of said active element," as defined by amended Claim 10.

Therefore, Applicant respectfully submits that Claim 10 patentably distinguishes over Katoh for at least the foregoing reasons.

With regard to new Claim 28, Claim 28 recites, *inter alia*,

> the transfer element is configured to connect the active element to the another circuit such that the active element does not have a direct connection to the another circuit.

With regard to previous Claim 1, the Office Action takes the position that the insulation layer 4 of Katoh constitutes a "transfer element" because it "transfers heat from the element 6 to the other element, i.e., air, hence the element 4 of Katoh et al. reads as the transfer element." (See Office Action, at page 4). However, the insulation layer 4 is not configured to connect the circuit element 6 to the printed circuit board 1 such that the circuit element 6 does not have a direct connection to the printed circuit board 1. On the contrary, the circuit element 6 is directly connected to the printed circuit board 1 through metal legs 8a-8d (see Fig. 2) or even through common electrode 5 which acts as a grounding electrode (see col. 3, lines 26-29).

Therefore, Applicants submit that Katoh fails to disclose or suggest "the transfer element is configured to connect the active element to the another circuit such that the active element does not have a direct connection to the another circuit," as defined by new Claim 28.

Thus, Applicant submits that Claim 28 patentably distinguishes over Katoh for at least the foregoing reasons.

Consequently, in light of the above discussion and in view of the present amendment, the outstanding grounds for rejection are believed to have been overcome. The present application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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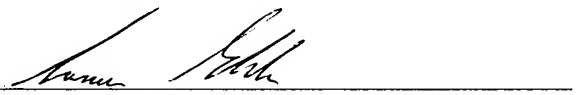

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